A filtering structure as shown in FIGURE 1 can be made in the following way.

Steel fibers with a diameter of 2 µm are obtained by means of the technique of bundled drawing, such as described, e.g., in US-A-3,379,000. A first non-woven web is then produced by means of arando-feeder apparatus which is disclosed e.g. in GB 1 190 844. The web is then sintered separately and compacted by means of a cold isostatic pressing operation carried out at a pressure higher than 2000 bar to obtain a porosity lower than 55 %, e.g. lower than 50 %, e.g. 46 %. This results in the first layer 12.

Steel fibers with a diameter of 8 µm are obtained with the above-mentioned technique of bundled drawing and are used to provide a second non-woven web. This second non-woven web will form the second layer 13. The second non-woven web is put on the second wire net 15 and the first layer 12 is put with its even surface on the second non-woven web. A first wire net 14, which has been pre-rolled, is put on the first layer. The thus obtained layered assembly is sintered together under a light pressure to obtain the layered filtering structure 10.

The layered filtering structure according to the invention has been subjected to a conventional textest for measuring the air permeability and to a bubble point pressure test. The results are given hereunder.

	First layer	Whole filter
Weight (g/m²)	450	2275
Thickness (mm)		1.02
Global porosity (%)		72.22
Textest		
Average (liter / dm²)		3.00 ± 15%
Bubble point pressure test		
Average (Pa)	27000 ± 15%	24520 ± 15%
Filter rating (µm)	1.37 ± 15%	1.51 ± 15%

Second Example.

The same tests have also been applied to another layered filtering structure according to the invention. The difference with the structure of the first example, is now that the first layer is compacted not in an isostatical way. The first layer is now compacted between two plates until a thickness of about 0.10 mm is obtained.

	First layer	Whole filter
Weight (g/m²)	450	2275
Thickness (mm)	0.11	1.02
Global porosity (%)	46.63	72.22
Textest		
Average (liter / dm²)	3.72 ± 15%	5.72 ± 15%
Bubble point pressure test		
Average (Pa)	18750 ± 15%	17430 ± 15%
Filter rating (µm)	1.97 ± 15%	2.12 ± 15%

Other embodiments according to the invention may be envisaged. As a matter of example only, following layered filtering structures are given :

diameter of filaments in first layer with low porosity (µm)	diameter of filaments in second layer with high porosity (µm)
4	12
6.5	22
8	30

The material used for the filtering structure according to the invention may be conventional compositions such as stainless steel 316®, Hastelloy®, Inconel® or Nichrome®. The latter composition can be applied for gas filtration at a high temperature.